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Ministry of Health

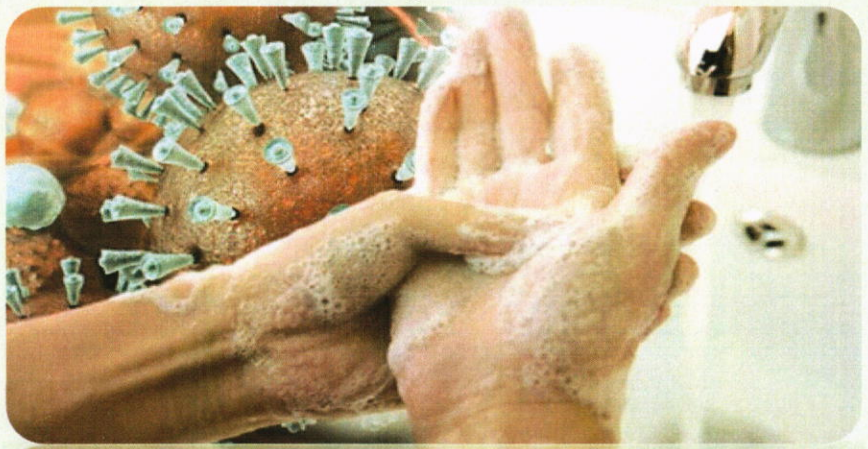
Infection Prevention and Control Department

PERFORMANCE IMPROVEMENT PROJECT

PROJECT TITLE:

HAND HYGIENE COMPLIANCE FOR DOCTORS AND NURSES IN ICU & PICU

January 2023



Prepared by:

MR. DHAFER AL ZULAYG
IPC Director

Reviewed by:

27-2-23

MR. DHAFER SALEH AL BAHRI
Quality and patient safety Director

Approved by:

28.2.23

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OVERVIEW

- NNGH is an affiliate of Ministry of Health at Kingdom of Saudi Arabia Corporation, and services Najran region . NNGH is a 200 bed facility with approximately 1200 employees (Physician , Nurses , trainee and Other health care professional)
- offering a comprehensive diagnostic and treatment facility. NNGH includes :

  (ER,ICU,PICU,OR,OPD, Male and Female Medical Ward, Male and Female Surgical Ward , pediatrics department, Home care department and Family Medicine Department)
- Infection Prevention and Control Department focuses on the safety of patients and staff through continuous monitoring of the proper application of correct hand hygiene process.
- Healthcare-associated infections (HAIs) are complications of healthcare and linked with high morbidity and mortality. Each year, about 1 in 25 U.S.A hospital patients is diagnosed with at least one infection related to hospital care alone; additional infections occur in other healthcare settings.
- Hand Hygiene most important procedure to prevent spread of infection.

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OBJECTIVES

The aim of our Hand hygiene project is to increase the Hand hygiene compliance rate by 80% in order to reduce Healthcare Associated Infection (HAIs) within NNGH.

Surveillance of Hand Hygiene

$$\text{Hand Hygiene Compliance} = \frac{\text{No. Action}}{\text{Opportunities}} \times 100\%$$

GOAL : to increase hand hygiene compliance rate for doctors and nurses in ICU through one year from 76 % to 80% through Quality Improvement Project.

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F- FIND AN OPPORTUNITY FOR IMPROVEMENT

COMPLIANCE TO HAND HYGIENE PROTOCOLS BY DOCTORS AND NURSES

- There was decreasing in the Hand Hygiene compliance rate among Nurses from February to November 2022 .
- There was decreasing in the Hand Hygiene compliance rate among doctors from January to December 2022.

73.18 % COMPLIANCE FOR DOCTORS
78.72% COMPLIANCE FOR NURSES

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HAND HYGIENE COMPLIANCE RATE ICU &PICU (JANUARY – DECEMBER 2022)

MONTH	Compliance Rate	
	Doctors	Nurses
JANUARY	71.82 %	81.62%
FEBRUARY	78.33%	75.86%
MARCH	77.12%	74.79%
APRIL	73.33%	75.42%
MAY	74.38%	77.12%
JUNE	73.33%	79.83%
JULY	71.67%	77.50%
AUGUST	72.27%	79.66%
SEPTEMBER	73.21%	78.74%
OCTOBER	68.69%	82.86%
NOVEMBER	73.96%	79.86%
DECEMBER	70.00%	81.43%

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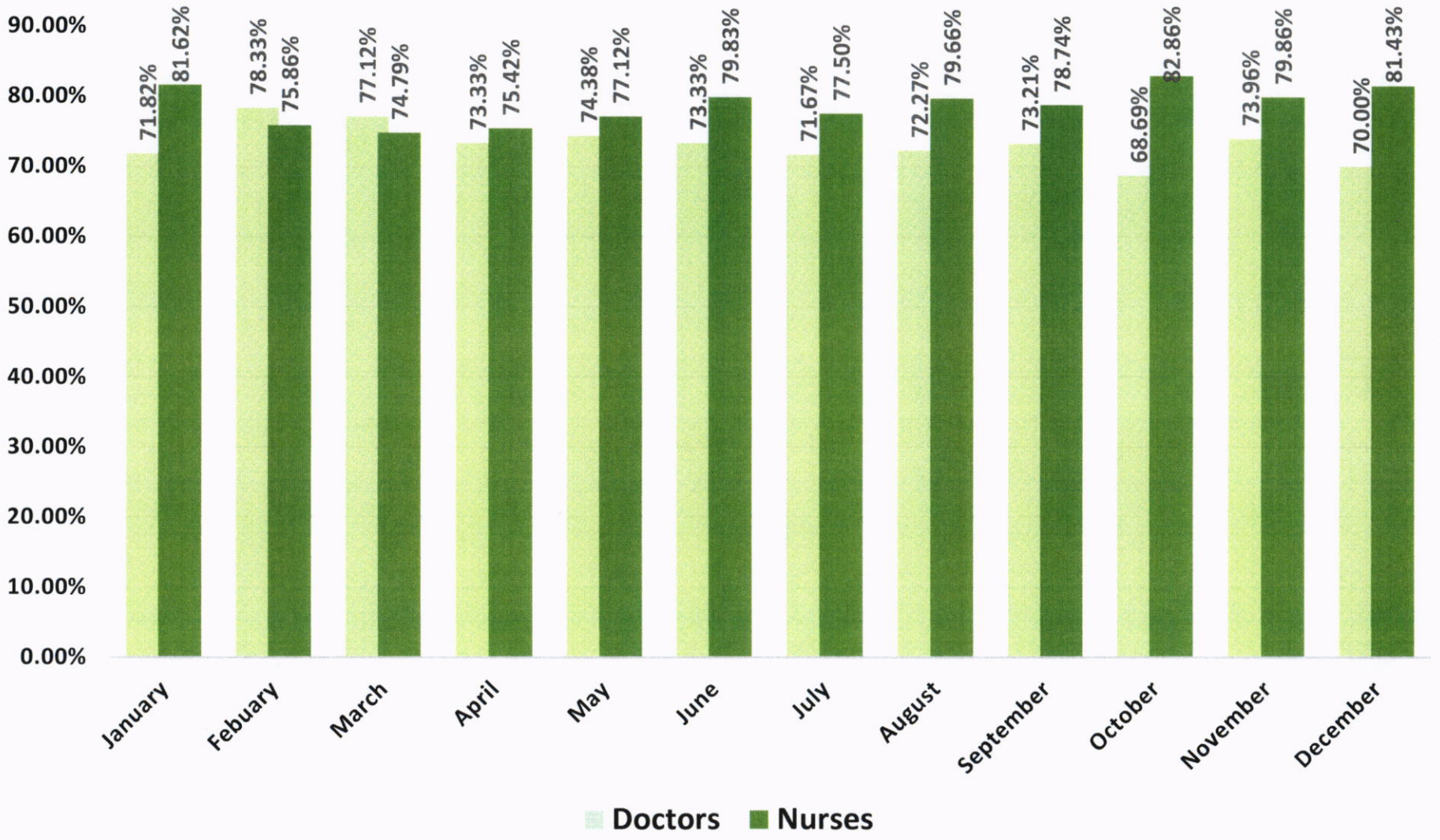
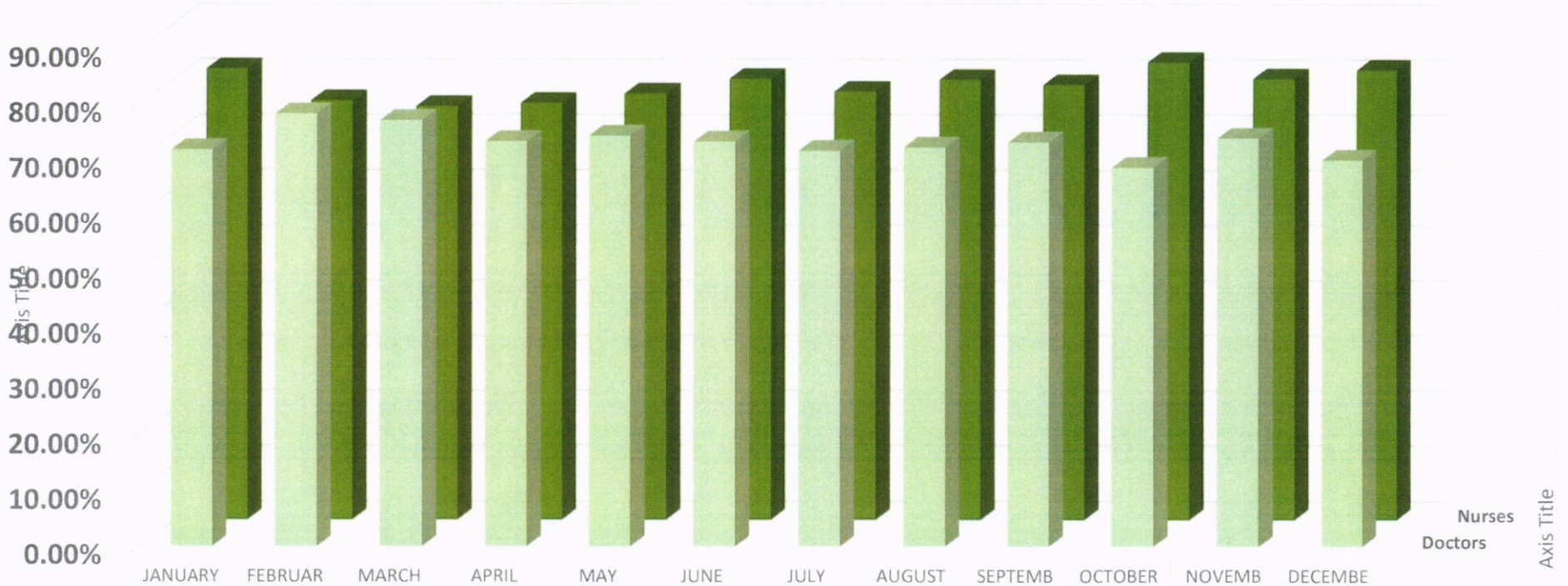
HAND HYGIENE COMPLIANCE RATE ICU (JANUARY –DECEMBER 2022)



HAND HYGIENE COMPLIANCE RATE ICU & PICU (JANUARY-DECEMBER 2022)



	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Doctors	71.82%	78.33%	77.12%	73.33%	74.38%	73.33%	71.67%	72.27%	73.21%	68.69%	73.96%	70.00%
Nurses	81.62%	75.86%	74.79%	75.42%	77.12%	79.83%	77.50%	79.66%	78.74%	82.86%	79.86%	81.43%

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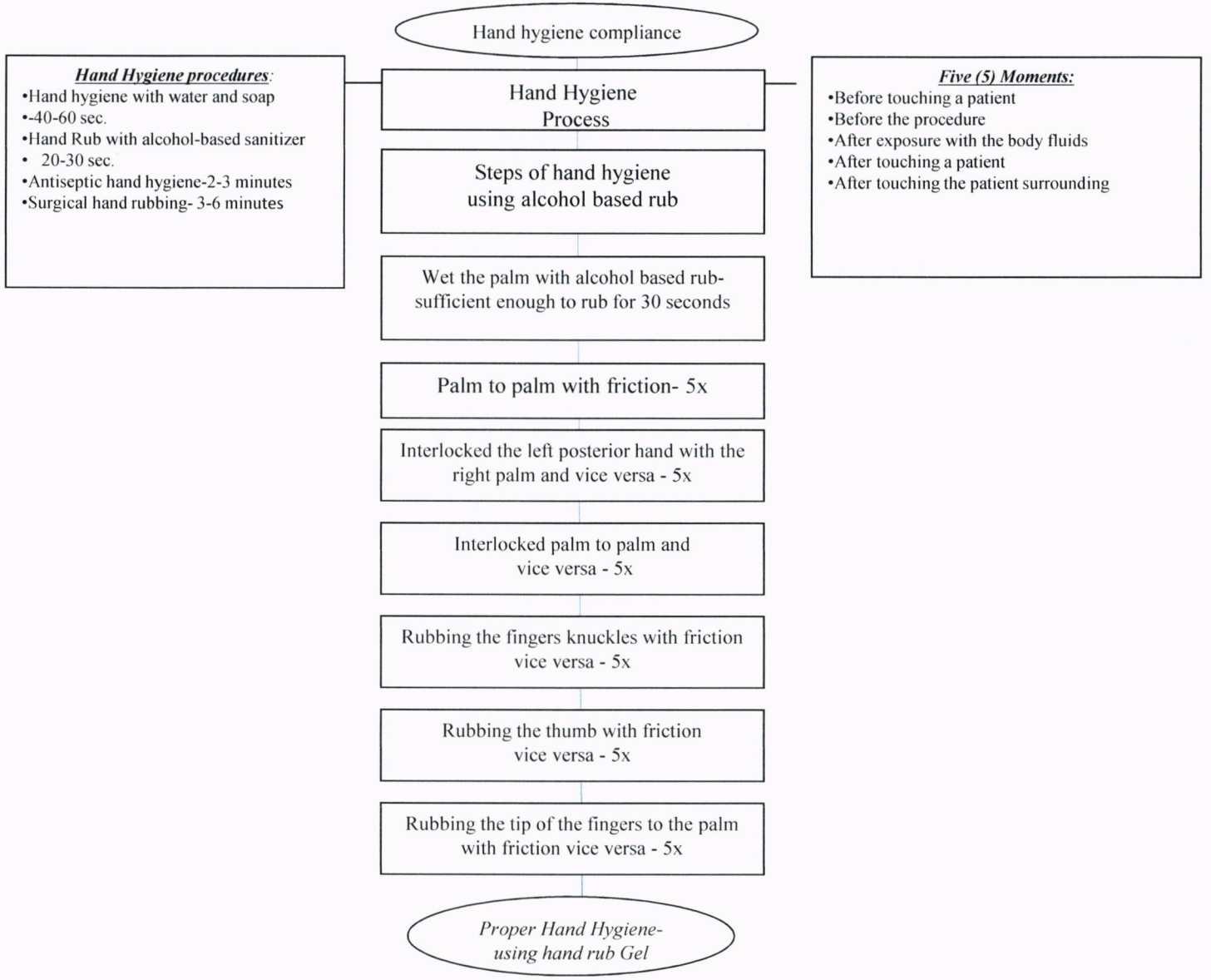
0- ORGANIZATION

TASK FORCE TEAM :

Name	Position	Designation
1. Mr. Dhafer Al Zulayg	IPC Director	Team Leader
2. Mr. Dhafer Saleh Al Bahri	QPS Director	Facilitator
3. Dr.Sayed AL Genawy	Chief of ICU	Member
4. Dr.Hoyda Mustafa	Chief of Pediatric	Member
5. Shruty Mol Gopi	ICU Nurse	Member
6. Suha Almahry	Head Nurse-PICU	Member
7. Dr.Jamila Mahgoup	IPC Coordinator	Member
8. Dyna Grace Frisco	IPC Practitioner	Member
9. Jane Flavia Carnelio	IPC Practitioner	Member

C-CLARIFY THE CURRENT PROCESS

IDEAL HAND HYGIENE PROCESS FLOWCHART



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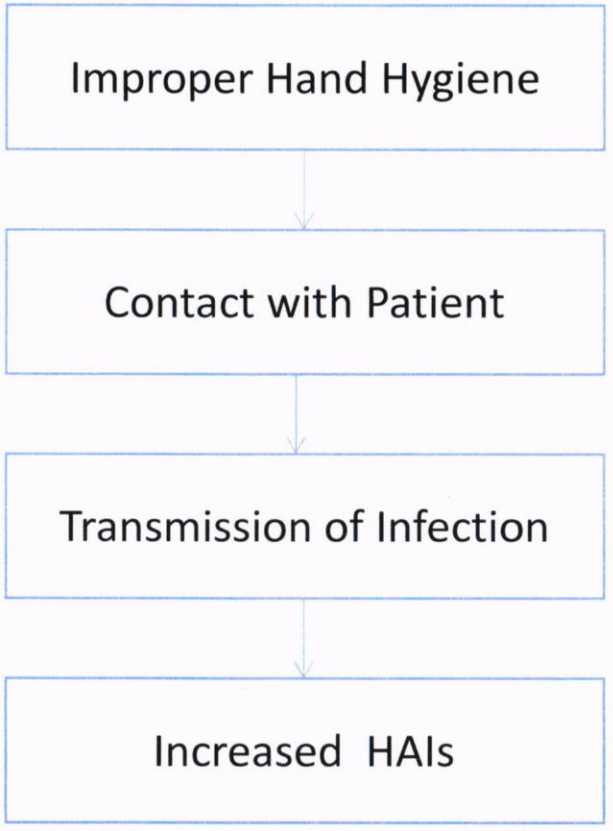
FLOWCHART FOR NON-COMPLIANCE OF HAND HYGIENE



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U- UNDERSTAND THE PROCESS OF THE PROBLEM AND THE PROCESS VARIATION

WHAT WENT WRONG? THROUGH BRAINSTORMING USING THE FISHBONE QUALITY TOOL:

PROBLEM LIST:

- Non-availability of hand hygiene materials.
- Not adequate number of posters and signs of hand hygiene.
- Lack sense of responsibility.
- Shortage or insufficient of staff/ manpower.
- Overload/ busy unit.
- Lack of coordination.
- Non Compliance to the policy.

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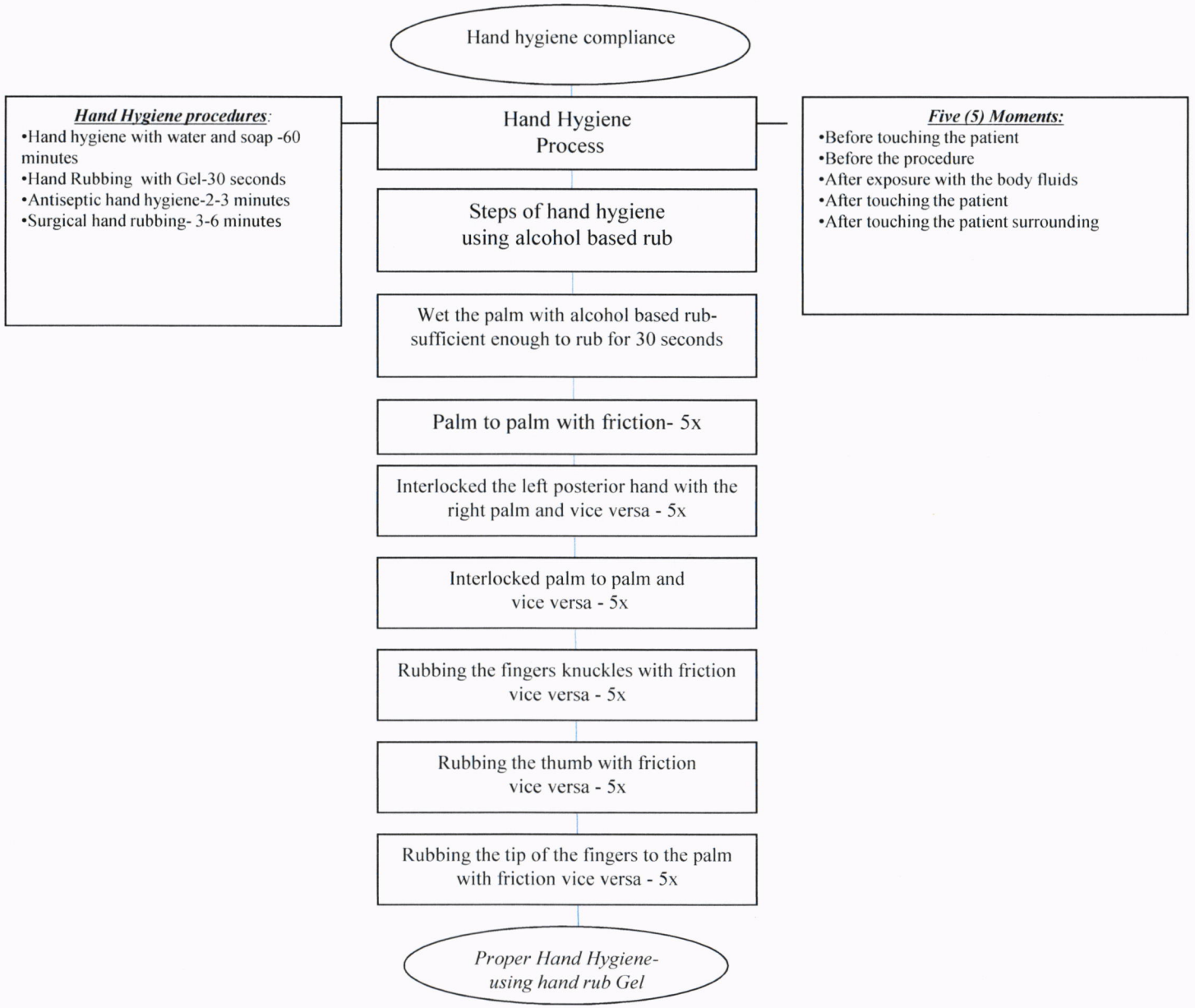
IDEAL HAND HYGIENE PROCESS FLOWCHART



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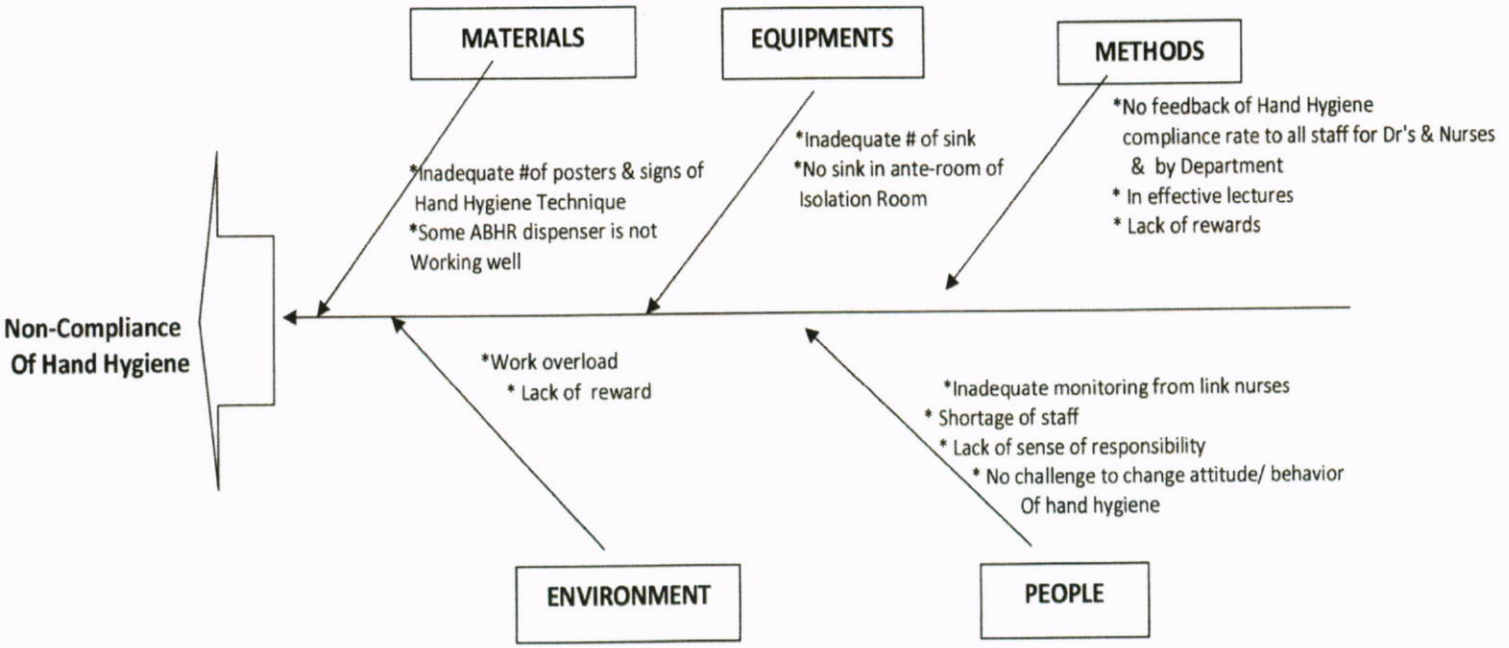
FISHBONE DIAGRAM FOR NON-COMPLIANCE TO HAND HYGIENE



NO	ITEM REQUIRED	NO OF REQUIREMENT	SIZE	DISTRIBUTION
1	Hand washing Sink (Hand free)	18	-	ICU-4 PICU-10 ER-1 M3-1 S3-1 LAUNDARY-1
2	Hand Rub Poster	150	28*18cm-125No's	Hospital Facility
			19*10cm-25No's	PICU & ICU
3	PPE Donning & Doffing	25	28*18CM	M1-1, Pedia-1, S1-1, S2-1, S3-1, M3-1, ICU-3, PICU-2, OR-3, ER-6, Laundary-2, waste Room-1, CSSD-1, Radiology-1
4	5 Moments Poster	200	28*18cm-150	All Departments
			19*10cm-50No's	ICU & PICU
5	Gloves aid decision making pyramid board	22	50*50cm	ICU-2, PICU-2, M1-1, S1-1, S2-1, Pedia-1, OR-2,OPD-2,Radio-1,Lab-1,CSSD-1, ER-5, Extraction room-1,Dental OPD-1
6	Basket(Hand free)	25	-	
7	Dispenser- Hand rub	200	-	
8	Dispenser-Soap	50	-	
9	Alcohol Holder	75	-	
10	Television	2	-	
11	USB	5	-	
12	Family, watcher & Visitor Education as precaution wise			
	• Airbone	15	28*18cm	
	• Droplet	15	28*18cm	
	• Contact	25	28*18cm	
13	Bulletin Board	12	70*77cm(6 Poster in 1 Board, each poster 22*18cm)	Pedia, ER, ICU, PICU,M3,S3, OR, OPD,Radio, Lab, CSSD,Laundary
14	Holder for Isolation Sign	70	-	

S-SELECT THE IMPROVEMENT : OUR GOAL IS TO INCREASE HAND HYGIENE COMPLIANCE RATE TO REACH 80% IN ICU THROUGH:

1. Request for adequate/sufficient supplies.
2. Disciplinary action should be applied and counseling should be initiated prior to the next step of disciplinary procedures.
3. Intentional negligence/ non-compliance of the process may affect the annual evaluation rating of the staff.
4. Fast tract the requisition of manpower.
5. Giving of rewards and certificates for those areas/staffs that comply and perform proper hand hygiene process.
6. Improved effective communication through continuous education and video film showing related to hand hygiene process using the 5 moments of hand hygiene guidelines.
7. Increase staff education on Hand Hygiene.

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P-D-C-A

PLAN – DO – CHECK - ACT

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ACTION PLAN

No.	Problem List	Recommendation	Responsible Person	Time Frame	Status
1.	Shortage of staff	Administration should hire more staff.	Human Resources Hospital Director	Every 3 months	Open
2.	Work overload	Administration should hire more staff	Hospital Director	Every 3 months	Open
3.	Inadequate no. of sink in anteroom of isolation (e.g : S2,M1 and positive pressure isolation room in ICU).	Provide sink in each anteroom of isolation room.	Hospital Director Assistant hospital director for Maintenance and safety IPC Director	Within 6 months	Open
4.	Inadequate no. of posters , signs and TV monitor,	Provide more posters , signs and TV monitor of Hand Hygiene Technique & 5 moments of Hand Hygiene and glove use information leaflet.	Hospital Director IPC Director	Every 3 months	Open
7.	Increase of reward	Hand Hygiene Champion.	IPC Team	Monthly	Closed
8.	Inadequate of encouragement & support.	Leader round each month to encourage staff to do Hand Hygiene.	Administration IPC Director	Monthly	Open
9.	Increase number of Lectures	Lectures & workshops should be perform weekly.	IPC Team	Weekly	Open
10.	No sink in medication room.	provide sink in each medication room in all hospital departments	Hospital Director Maintenance Director IPC Director	Within 6 months	Open

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HAND HYGIENE PROGRAMM ANNUAL PLAN FOR 2023

Month	Topic	Activity Type	Target To	Target %
March	5 moments & Right HH techniques	Training	ICU & PICU	50% of HCW
April	Hand hygiene	Activity	Patient	All Patient
May	Hand Hygiene Day	Plan & Celebration	Hospital	HCW, Patients, Visitors
June	When & How to do HH	Buddy System (4hr training)	New Staff/Intern & student	Atleast 10
July	5 moments & Right Technique	Training or workshop	All HCW	25% of HCW
August	HH	Reminder	Doctors	100%
September	5 moments & Right HH techniques	Training	ICU & PICU	50% of HCW
November	HH	Champions & Role model	ICU & PICU	ICU & PICU
December	HH	Creativity to change behavior	Doctors	ICU Doctors

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D- dO

IMPLEMENTATION PROCESS

Plan was put into action for 3 months:

1. Lectures, trainings, workshops to all doctors and nurses – ICU & PICU
2. Close observation by use of Hand Hygiene Link Staff, Infection Control Practitioner and Department Head Nurses/ Leaders.
3. Request for Isolation Room, anteroom sink done.
4. Posters and signs and 5 (five)moments of Hand Hygiene were provided in all department and critical areas.
5. IPC manual provided.
6. Feedback for Hand Hygiene compliance rate were given to all department.

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IDEAL HAND HYGIENE PROCESS FLOWCHART